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From Game Theory to Real Life: How Social Value Orientation Affects Willingness to Sacrifice in Ongoing Close Relationships

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This research adopted an interdependence analysis of sacrifice, examining the link between commitment (i.e., the subjective experience of dependence and long-term orientation) and willingness to sacrifice in ongoing close relationships, and determining whether this link is moderated by preexisting individual differences in social value orientation (i.e., prosocial, individualistic, or competitive orientation). Consistent with hypotheses, results of 2 studies revealed both that willingness to sacrifice was associated with greater commitment and that this link was more pronounced among individualists than among prosocials. Results also revealed an association between one's own willingness to sacrifice and beliefs regarding the partner's willingness to sacrifice (this link was somewhat more pronounced among prosocials than among individualists) and one's own willingness to sacrifice and actual partner's willingness to sacrifice.

Individuals involved in close relationships sometimes find it necessary, important, and to some degree desirable to forego immediate personal well-being and engage in some form of self-sacrifice (e.g., spending less time with one's own friends; moving to a somewhat undesirable city for the sake of a partner's career). What makes individuals willing to forego immediate self-interest and engage in self-sacrificial activities? To what extent can willingness to sacrifice be understood in terms of considerations of long-term personal well-being or concern with the partner's well-being? And to what extent can such basic motivational processes be understood in terms of relatively stable personality differences?

During the past several decades, such questions have been addressed in the context of game theory, a literature focusing on how individuals solve different conflicts of interest (cf. Luce & Raiffa, 1957; Von Neuman & Morgenstern, 1947; for reviews,

see Komorita & Parks, 1994; Pruitt & Kimmel, 1977). This body of research has focused on experimentally induced patterns of interdependence between individuals who typically do not have a shared history of interdependence or an extended future of interdependence (i.e., experimental games). Paradoxically, motivations relevant to willingness to sacrifice and prosocial behavior arguably are relatively more important in ongoing, enduring relationships, because such partners share a history as well as a future of interdependence. Moreover, one might assume that acts of sacrifice are relatively frequently displayed in such relationships (particularly in close relationships). From this perspective, it is interesting to note that prior research on close relationships has devoted little attention to prosocial motivation *per se*; rather, the literature on close relationships has tended to focus on issues such as attraction, intimacy, and relationship functioning (for reviews, see Berscheid, 1994; Clark & Reis, 1988).

The present research adopts an interdependence analysis of willingness to sacrifice in close relationships, seeking to integrate empirically distinct literatures regarding interpersonal orientations, prosocial behavior, and close relationships. Using constructs and principles of interdependence theory (Kelley & Thibaut, 1978), we propose that the motivations relevant to understanding willingness to sacrifice are partially shaped by (a) the degree to which an individual experiences dependence and long-term orientation to a relationship (i.e., commitment) and (b) preexisting interpersonal orientations, tendencies that presumably are not developed in the context of that ongoing relationship (cf. Kelley & Thibaut, 1978; McClintock, 1972). The primary goal of the present research was to examine the moderating role of individual differences in social value orientations—preferences for particular patterns of outcomes for self in relation to others (McClintock, 1972)—in affecting the association between dependence-relevant features of relationships and willingness to sacrifice.

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An Interdependence Analysis of Willingness to Sacrifice

In the context of ongoing close relationships, partners' interests do not always correspond. Across the variety of domains that are likely to characterize ongoing close relationships, partners may have differing interests, creating interdependence problems that challenge the well-being of the individual, the partner, or the relationship (cf. Holmes & Boon, 1990; Kelley, 1979). At least in part, such interdependence problems can be characterized as social dilemmas, in that individuals are confronted with the conflict between their own interests versus those of the partner and their collective interests (cf. Komorita & Parks, 1994; Van Lange & Messick, 1996). That is, such situations call for decisions about whether to sacrifice, defined as foregoing one's immediate self-interest to promote the well-being of the partner or the relationship (cf. Van Lange, Rusbult, et al., 1997).¹ Given that acts of sacrifice may entail undesirable or costly activities, it is important to distinguish between the concepts of sacrifice and costs. First, sacrifice refers to behavior (i.e., behavior that departs from direct self-interest), whereas cost refers to the psychological experience of negative or undesirable events (e.g., my partner is a bit clumsy). Second, sacrifice is inspired by a variety of goals (e.g., long-term personal well-being; the well-being of the partner; reciprocity) and to some degree is volitional, whereas costs do not typically occur as a result of choice (cf. Van Lange, Rusbult, et al., 1997).

According to interdependence theory (Kelley & Thibaut, 1978), willingness to sacrifice in ongoing relationships is likely to be influenced by a variety of factors, including the broader features of interdependence underlying a relationship, personally held goals or social dispositions, as well as beliefs regarding a partner's willingness to sacrifice (cf. Kelley, 1979; McClinck & Liebrand, 1988). Such prosocial behavior is asserted to result from a transformation of the objective interdependence situation, a situation that describes the direct outcomes each partner would obtain for the joint activities resulting from various combinations of their own and their partner's behavioral choices (i.e., the given matrix). The product of transformation of motivation is a reconceptualized situation (i.e., the effective matrix) that delineates preferences that are more strongly linked to behavior in settings of interdependence. Thus, transformation of motivation refers to a habitual or thoughtful process that may lead the individual to forego immediate self-interest and to act on the basis of broader goals (i.e., to act in accordance with the effective matrix). Such broader goals may include desire to enhance the long-term well-being of oneself, the relationship, the partner, or the desire to seek reciprocity.

Relationship-Based Transformations: The Role of Commitment

According to interdependence theory, prosocial behavior in ongoing relationships is strongly shaped by the broader interdependence structure underlying a relationship (Kelley & Thibaut, 1978; Rusbult & Van Lange, 1996). One primary feature of interdependence is level of dependence upon a relationship, which is asserted to be influenced by the level of satisfaction individuals derive from their relationships (i.e., the degree to which the relationship is an important source of happiness, love,

and fulfilment of desires) as well as by the perceived quality of alternatives (i.e., the degree to which specific alternative partners, the field of eligibles, and the option of noninvolvement are attractive). The investment model (cf. Rusbult, 1980, 1983) extends interdependence theory by asserting that experienced level of dependence is also affected by the size of prior investments in the relationship (i.e., the degree to which many important resources are linked to a relationship and would be lost on termination).

The investment model places particular emphasis on the subjective experience of dependence, termed *commitment level*, the internal representation of long-term orientation, including the feeling of being linked to a relationship, intending to maintain it for better or worse (cf. Rusbult, 1980, 1983). Consistent with interdependence theory and the investment model, it has been well-established that strong commitment is associated with high level of satisfaction (i.e., the positive forces that draw one to a relationship), poor quality of alternatives (i.e., the external constraints that block one from leaving a relationship), and large investment size (i.e., the vested interests that bind one to a relationship; e.g., Felmlee, Sprecher, & Bassin, 1990; Lund, 1985; Rusbult, 1980, 1983; Simpson, 1987). Moreover, commitment promotes several activities that may serve as relationship-maintenance mechanisms, such as derogation of alternatives, responses to dissatisfaction, and accommodation (i.e., the tendency to respond constructively rather than destructively to a partner's potentially destructive behavior; e.g., Johnson & Rusbult, 1989; Rusbult, Johnson, & Morrow, 1986; Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991).

However, by focusing on relationship-maintenance mechanisms, prior research on the investment model has devoted little attention to prosocial motivation in close relationships. Granted, accommodation shares some similarities with willingness to sacrifice; yet, accommodation is more situation- or partner-specific (i.e., it is a response to partner's potentially destructive behavior). In contrast, willingness to sacrifice embodies a more general form of prosocial motivation, which can be evoked by a variety of different situations in which partners' interests do not entirely correspond. Moreover, thus far, only one article has directly addressed willingness to sacrifice, providing prelimi-

¹ The current definition of *sacrifice* parallels the definition given in Webster's *New World Dictionary*: "giving up one thing for another; surrender to gain some other object; devote with loss" or "foregoing something valued for the sake of something having a more pressing claim." The current research focuses on *willingness* to sacrifice (rather than actual sacrifice), because our primary interest is to advance our knowledge of the determinants of the propensity to engage in sacrifice. Levels of actual sacrifice are likely to be influenced not only by the individual's willingness to sacrifice but also by the degree of correspondence of outcomes (i.e., the frequency and intensity with which partners' preferences conflict determine the extent to which a relationship calls for sacrifice). Given that this is one of the first articles that addresses sacrifice in close relationships, measuring willingness to sacrifice seemed like a reasonable means of tapping the former while controlling for the extent to which a relationship calls for sacrifices. This reasoning also implies that the determinants underlying willingness to sacrifice should parallel those underlying actual sacrifice, except that actual sacrifice is also determined by circumstances of the relationships itself (i.e., the extent to which such circumstances call for sacrifice).

nary evidence in support of the claim that commitment is associated with enhanced willingness to sacrifice (Van Lange et al., 1997). More important, extant research on the investment model has not yet focused on why commitment may enhance prosocial motivation as embodied by willingness to sacrifice.

Why should strong commitment promote willingness to sacrifice? We suggest two reasons, both of which are inherently related to the concept of commitment. First, commitment represents dependence on a relationship or the extent to which an individual needs the partner and relationship. To the extent that individuals are more committed to their relationships, they should be more willing to sacrifice direct self-interest in order to sustain the relationship—the more you have to lose, the more you should be willing to give up in order to hold on to what you've got. Second, commitment represents long-term orientation; committed individuals look beyond the here and now, considering current noncorrespondence problems in light of the future of the relationship. It seems plausible that individuals recognize (consciously or unconsciously) that giving up some immediate self-interest to solve situations of noncorrespondence tends to contribute to the health and stability of the relationship over the long run. By exhibiting sacrifice, an individual communicates commitment to the relationship and consideration to the partner, thereby decreasing the odds that the partner questions an individual's commitment or affection (cf. Kelley, 1979). Thus, individuals with high commitment are likely to exhibit high levels of sacrifice because they are strongly motivated to pursue the well-being of the relationship now and in the future, a motivation that parsimoniously can be understood in terms of the pursuit of long-term personal well-being rather than the pursuit of partner well-being.²

Disposition-Based Transformations: The Role of Social Value Orientation

Transformational tendencies are also shaped by social dispositions. One such disposition extensively discussed by Kelley and Thibaut (1978) has been referred to by Messick and McClintock (1968) as *social value orientation*, a personal disposition that is assumed to reflect preferences for particular types of outcome transformations, reflecting the ways in which outcomes for self and others are evaluated (cf. Knight, Dubro, & Chao, 1985; McClintock & Liebrand, 1988; Van Lange & Kuhlman, 1994). The concept of social value orientation is rooted in research on experimental games, a tradition largely inspired by game theoretical principles (Luce & Raiffa, 1957; Von Neuman & Morgenstern, 1947). Challenging the original assumptions underlying game theory, this research has revealed that individuals' preferences and behavior do not directly reflect the logic dictated by rational self-interest. Indeed, the seminal work of Messick and McClintock (1968) revealed that a substantial number of individuals approach experimental games by considering not only their own outcomes but also the outcomes afforded to others.

Although a variety of social value orientations can be identified (cf. McClintock, 1972), in the current research we focus on an empirically established typology that distinguishes between three broad groups of orientation: cooperation, individualism, and competition (e.g., Grzelak, 1982; Kramer, McClin-

tock, & Messick, 1986; Kuhlman & Wimberley, 1976; Liebrand & Van Run, 1985; Van Lange & Kuhlman, 1994). Individuals with cooperative or prosocial orientation tend to maximize the well-being of both self and others and to minimize differences between the well-being of self and others (i.e., they attend to the goodness of joint outcomes and to equality in outcomes); individualists tend to maximize their own well-being with little or no regard for the well-being of others (i.e., they attend to the goodness of their own outcomes); and competitors tend to maximize their own well-being in relation to the well-being of others (i.e., they attend to the goodness of relative outcomes).

Social value orientations have been demonstrated to exert effects in interaction with the interdependence structure underlying a relationship or with beliefs regarding partner's probable behavior and orientation. Earlier work using iterated game situations (i.e., situations in which individuals are interdependent over a series of choices) has addressed such Person \times Situation interactions, revealing that prosocials approach interdependent others in a prosocial manner and continue to do so until the interdependent other fails to exhibit prosocial behavior (e.g., McClintock & Liebrand, 1988; Kuhlman & Marshall, 1975; Sattler & Kerr, 1991). On the other hand, individualists engage in prosocial behavior only if there are long-term self-oriented reasons for doing so (e.g., if the other follows a tit-for-tat strategy which rewards prosocial or cooperative behavior and punishes selfish, noncooperative behavior by imitating the previous choice made by the interaction partner). Finally, competitors are not willing to engage in prosocial behavior, even if the interaction partner consistently exhibits prosocial behavior and even if they themselves could benefit in the long run by doing so (e.g., in response to a tit-for-tat strategy). This work suggests that in relationships characterized by repeated interaction, prosocial behavior by prosocials can be understood in terms of their pursuit of a partner's well-being and desire for reciprocity; prosocial behavior by individualists should be largely determined by considerations of long-term self-interest; and competitors should not be particularly responsive to the well-being of the partner or to long-term self-interest and therefore should generally exhibit low levels of sacrifice (i.e., these individuals seem most concerned with not being exploited by their partners and coming out ahead).

One might ask whether findings observed in experimental games have any bearing on the domain of ongoing close relationships, in that there would seem to be important differences between these two settings of interdependence. For example, individuals may be more likely to engage in prosocial behavior with their romantic partners than with persons they do not know (i.e., in experimental games, the interdependent other typically is an unknown other). However, we see no a priori reason why

² The assumption that commitment largely promotes long-term self-interest is not to suggest that commitment is entirely unrelated to desire to enhance the partner's well-being. For example, committed individuals may experience strong attachment or may feel inclined to adopt a collectivistic, communal orientation in such a manner that a departure from self-interest benefiting the partner may not be experienced as a departure from self-interest (cf. Clark & Mills, 1979; Clark, Mills, & Powell, 1986).

such differences would modify the fundamental motivational differences between prosocials, individualists, and competitors. In particular, because dependence and long-term orientation as well as partner behavior are critical in understanding behavior in repeated game interactions, we assume that the motivational differences between prosocials (i.e., concern with partner well-being, reciprocity), individualists (i.e., short-term as well as long-term personal well-being), and competitors (i.e., relative benefit) are relevant to understanding prosocial behavior in ongoing relationships.

In what ways might social value orientation be related to willingness to sacrifice in ongoing relationships? Earlier, we outlined why it is plausible that the link between commitment—representing dependence and long-term orientation—and sacrifice can predominantly be understood in terms of long-term self-interest. Given that individualists are strongly motivated to engage in prosocial behavior when such actions are believed to serve long-term personal well-being, these individuals should exhibit strong links between commitment and willingness to sacrifice. Such links should be less pronounced for prosocials because these individuals are likely to exhibit willingness to sacrifice even when long-term personal well-being is not salient, in that they are primarily concerned with partner well-being and reciprocity. Finally, competitors should exhibit relatively weak links between dependence and willingness to sacrifice because these individuals by and large do not tend to pursue long-term self-interest; they are primarily concerned with not being exploited, coupled with a tendency to prefer outcomes that are superior to those of their partners.

Accordingly, we advanced three central hypotheses. First, we predicted that greater willingness to sacrifice would be associated with higher levels of commitment (Hypothesis 1). Commitment is assumed to be promoted by three specific commitment-enhancing variables, representing positive feelings that draw one to a relationship (high satisfaction), the external constraints that block one from leaving a relationship (poor alternatives), and the vested interests that bind one to a relationship (large investment size). Therefore, we predicted that greater willingness to sacrifice would be associated with greater levels of satisfaction (Hypothesis 1a), lower perceived quality of alternatives (Hypothesis 1b), and greater investment size (Hypothesis 1c).

Second, on the basis of the assumption that the link between commitment and sacrifice could largely be understood in terms of considerations of long-term self-interest, we predicted that relative to prosocials and competitors, individualists would exhibit a stronger link between commitment and sacrifice (Hypothesis 2). Also, we examined whether any of the links predicted in Hypotheses 1a, 1b, and 1c would be moderated by social value orientation. In an exploratory vein, we advanced and tested three specific hypotheses, predicting that relative to prosocials and competitors, individualists would exhibit a stronger link between satisfaction and sacrifice (Hypothesis 2a), quality of alternatives and sacrifice (Hypothesis 2b), and investment size and sacrifice (Hypothesis 2c). (Of course, this set of hypotheses does not necessarily assume that social value orientation will moderate all three links; for example, it could be that the subjective experience of dependence derived from satisfaction primarily guides individualists' concern with long-term self-interest.)

Third, in light of the motivational differences between prosocials, individualists, and competitors, we advanced the prediction that prosocials would exhibit greater levels of sacrifice than individualists, who in turn would exhibit greater levels of sacrifice than competitors (Hypothesis 3).

Partner-Based Transformations: Role of Partner's Willingness to Sacrifice

A second goal of the present research was to examine the link between one's own willingness to sacrifice and beliefs regarding partner's willingness to sacrifice. Interdependence theory (Kelley, 1979; Kelley & Thibaut, 1978), as well as several other theories relevant to interdependence (e.g., equity theory, justice theories; Adams, 1965; Lerner & Lerner, 1981; Messick & Cook, 1983; McClintock, Kramer, & Keil, 1984; Mikula, 1980), states that transformational tendencies are partially shaped by expectations or beliefs regarding prosocial intentions and behavior by the partner. The basic argument is that individuals desire reciprocity, seeking a balance between their own inputs and the benefits they receive, or expect to receive, in return. Consistent with this argument, there is evidence that reciprocity affects prosocial behavior across a wide domain of interdependent relationships, including close relationships (e.g., Hatfield, Traupmann, Sprecher, Utne, & Hay, 1985). Accordingly, we advanced the prediction that greater perceived partner willingness to sacrifice would be associated with greater levels of one's own willingness to sacrifice (Hypothesis 4).³ However, that reciprocity tends to be fairly characteristic of the functioning of many individuals in their close relationships is not to deny that there is also considerable variation between individuals, with some feeling

³ We expected the relationship between perceived partner's willingness to sacrifice and one's own willingness to sacrifice to be quite strong, in that the desire for reciprocity is unlikely to be the only determinant underlying this link. Other mechanisms that are likely to contribute to this relationship are assumed similarity, or tendencies to project own motivations and behaviors onto the partner, and post hoc justification, or rationalizing one's own levels of sacrifice by coloring judgments of the partner's willingness to sacrifice (cf. Messé & Sivacek, 1979). Moreover, such relationships may also be partially accounted for by real similarity (i.e., people who are willing to sacrifice seek one another out) and modeling (i.e., observing a sacrifice by the partner may remind an individual that he or she, too, should behave well). We should note that an assumption underlying the desire for reciprocity is that beliefs regarding a partner's willingness to sacrifice largely determine one's own willingness to sacrifice. Given that the other mechanisms (i.e., assumed similarity and justification) suggest the importance of the reverse causal direction, it would have been desirable to manipulate beliefs regarding partner's willingness to sacrifice, thereby providing an empirical test of the claim that these variables, at least in part, affect willingness to sacrifice. However, in the context of ongoing, close relationships, it would be exceedingly difficult to directly test the direction of causality (i.e., one cannot effectively manipulate beliefs regarding a partner's willingness to sacrifice in ongoing relationships). Thus, the current research does not attempt to test the direction of causality underlying links between one's own willingness to sacrifice and beliefs regarding partner's willingness to sacrifice. (For the same reason, we did not seek to manipulate levels of commitment to demonstrate its effects on willingness to sacrifice.)

overbenefited and others feeling underbenefited (e.g., Hatfield et al., 1985; Sprecher, 1986).

Might social value orientation be related to this variation in reciprocity, overbenefit, and underbenefit? If so, how? Recall that at least in the context of experimental games, prosocials' behavior tends to be more strongly guided by considerations of reciprocity than the behavior of individualists and competitors, who exhibit tendencies to exploit, rather than reciprocate, prosocial behavior by interdependent others. Accordingly, from this perspective, one might advance the prediction that individualists and competitors would exhibit a pronounced tendency to exhibit lower levels of sacrifice relative to the level of sacrifice ascribed to the partner, whereas prosocials should ascribe similar levels of sacrifice to themselves and their partners (Hypothesis 5). Alternatively, given that prosocials tend to be especially concerned with the partner's well-being, prosocials might be particularly responsive to the partner's needs, irrespective of whether they expect benefits from the partner in return (i.e., prosocials would exhibit a communal orientation; cf. Clark & Mills, 1979). In contrast, individualists and competitors may be more strongly inclined to keep a record of balances of input and benefits, ensuring that their own inputs do not exceed the benefits they might receive in return (cf. exchange orientation, Clark & Mills, 1979; aversive competition, Messick & Thorngate, 1967). Hence, an alternative hypothesis states that the relationship between one's own willingness to sacrifice and partner's willingness to sacrifice would be more pronounced for individualists and competitors than for prosocials. Thus, in an exploratory vein, the present research explored the validity of Hypothesis 5, a prediction based on evidence obtained in prior research on experimental games.

Study 1

The preceding line of reasoning provides an interdependence framework for understanding motivations relevant to willingness to sacrifice. Study 1 was a cross-national study (conducted in the United States and the Netherlands), designed to test Hypotheses 1 through 5.

Method

Participants and procedure. Participants were recruited at the University of North Carolina, Chapel Hill, and the Free University, Amsterdam, the Netherlands. The U.S. sample participated in partial fulfillment of requirements for an introductory psychology class. The Dutch sample was recruited at the university cafeteria and library as well as at locations other than the university campus (e.g., restaurants and waiting halls at train stations). The main reason for recruiting participants in both the United States and the Netherlands, and at places other than the university campus, was to minimize restriction of range and to provide a basis for some generalizability of the current findings across differing dating relationships.

The procedure involved first administering a series of decomposed games (to be described shortly) in order to assess social value orientation. This task, described as a decision-making task, was also completed by participants who were not involved in ongoing dating relationships (upon completion, these participants were either thanked for their participation and debriefed at the Free University or asked to participate in another study at the University of North Carolina). Those who were involved in a dating relationship proceeded with the instrument measur-

ing dependence-relevant features of relationships, own willingness to sacrifice, and perceived partner willingness to sacrifice. Because we wanted to avoid the possibility that the measurement of social value orientation would be influenced by concerns regarding the current relationship, participants were not informed that the study included questions about the current relationship until they completed the instrument measuring social value orientation.

We recruited 200 U.S. participants (77 men and 123 women) and 136 Dutch participants (73 men and 63 women). On average, participants were 21 years old and had been involved for nearly 2 years (mean duration was 23 months). Comparison of the two samples revealed that, relative to U.S. participants, Dutch participants were older ($M_s = 19.48$ vs. 23.67 , respectively), $F(1, 291) = 166.94$, $p < .001$, and had been involved with their partners almost twice as long ($M_s = 17.60$ vs. 31.42 months, respectively), $F(1, 291) = 25.39$, $p < .001$.

Measuring social value orientation. The study first administered a series of nine decomposed games to assess social value orientation (Messick & McClintock, 1968; cf. Pruitt, 1970). This task was described as a decision-making task and involved making choices between specific combinations of outcomes for oneself and for an (hypothetical) other. The other person was said to be someone they did not know and whom they would not meet during the course of the study (so as to measure individuals' general tendencies toward others). Outcomes were presented in terms of points, and participants were asked to imagine that the points had value to themselves as well as to the other person (e.g., "Every point has value: The more points you receive, the better for you, and the more points the other receives, the better for him or her"). These instructions are identical to those used in prior research (e.g., Sattler & Kerr, 1991; Van Lange & Kuhlman, 1994).

As in most research on social value orientations, we administered decomposed games in which participants were given a choice among three options, each corresponding to one of the three social value orientations under study. An example is the following: Option A, 480 points for self and 80 points for other; Option B, 540 points for self and 280 points for other; and Option C, 480 points for self and 480 points for other. In this example, Option A represents the competitive choice because it yields a larger difference between one's own and the other's outcomes ($480 - 80 = 400$) than either Option B ($540 - 280 = 260$) or Option C ($480 - 480 = 0$). Option B represents the individualistic choice because one's own outcomes are larger (540) than are those in Option A (480) or Option C (480). Finally, Option C represents the prosocial choice because it provides a larger joint outcome ($480 + 480 = 960$) than does either Option A ($480 + 80 = 560$) or Option B ($540 + 280 = 820$) and because Option C provides a smaller discrepancy between one's own and other's outcomes ($480 - 480 = 0$) than does either Option A ($480 - 80 = 400$) or Option B ($540 - 280 = 260$).

The decomposed game measurement technique has been demonstrated to have good internal consistency (e.g., Liebrand & Van Run, 1985) and test-retest reliability over substantial periods of time (i.e., 19 months; Van Lange & Schuyt, 1997; see also Dehue, McClintock, & Liebrand, 1993; Kuhlman, Camac, & Cunha, 1986). Also, social value orientations, as measured by the current nine-item decomposed game measure, are not related to tendencies toward favorable self-presentation or to measures of mood (e.g., Platow, 1992; Van Lange, Otten, De Bruin, & Joireman, 1997). Finally, there is increasing evidence that social value orientations are predictive of cognition and behavior in many settings of interdependence, supporting the ecological validity of social value orientation (e.g., negotiation, De Dreu & Van Lange, 1995; helping behavior, McClintock & Allison, 1989; environmental decision making, Van Vugt, Van Lange, & Meertens, 1996).

As in previous research (e.g., McClintock & Allison, 1989; Van Lange & Kuhlman, 1994), participants were classified if they made at least six of the nine choices consistent with one of the three social value orientations. Using these criteria, we identified 178 prosocials (61%),

74 individualists (25%), and 42 competitors (14%) across the two samples (42 individuals made fewer than six consistent choices and thus were not classified). This distribution is similar to that observed in prior research (e.g., Liebrand & Van Run, 1985; Van Lange & Kuhlman, 1994). Moreover, the distributions of social value orientations were not significantly different, $\chi^2(2, N = 294) = 2.66, ns$, for the U.S. (64.5% prosocials, 22.5% individualists, and 13% competitors) and Dutch samples (55% prosocials, 29% individualists, and 16% competitors) nor for women and men, $\chi^2(2, N = 294) = 1.83, ns$ (for related findings, see Liebrand & Van Run, 1985; Van Lange & Kuhlman, 1994).

Measuring commitment and commitment-enhancing variables. The measurement of the dependence-relevant features of relationships was based on prior work on the investment model (e.g., Rusbult, 1983; Rusbult et al., 1991). Among the Dutch sample, we used Dutch translations of the scale for commitment level, which was tested and validated by Van Lange, Rusbult, et al. (1997). Commitment level was measured with six items (e.g., "Do you feel committed to maintaining your relationship with your partner?" 0 = *not at all*, 8 = *very much*; "For how much longer do you want your relationship to last?" 0 = *a month or less*, 4 = *twelve months*, 8 = *ten years or more*; $\alpha = .82$). Satisfaction level was measured with four items (e.g., "All things considered, to what degree do you feel satisfied with your relationship?" 0 = *not at all satisfied*, 8 = *completely satisfied*; $\alpha = .85$). Quality of alternatives was measured with four items (e.g., "How attractive are the people other than your current partner with whom you could become involved?" 0 = *alternatives are not at all appealing*, 8 = *alternatives are extremely appealing*; "How do your alternatives [dating another, spending time alone, etc.] compare to your relationship with your partner?" 0 = *alternatives are much worse*, 8 = *alternatives are much better*). The internal consistency was lower than ideal ($\alpha = .59$), but was judged acceptable in that the items tap multifaceted aspects of alternatives (i.e., evaluation of specific alternative partners, the field of eligibles, and the option of noninvolvement) and because this measure has been widely used in past research. Finally, investment size was measured with four items (e.g., "Have you put things into your relationship that you would in some sense lose if the relationship were to end [e.g., time spent together; secrets disclosed to one another]?" 0 = *put nothing into relationship*, 8 = *put everything into relationship*; $\alpha = .68$).

Measuring willingness to sacrifice. Given our definition of willingness to sacrifice, it is important that participants are confronted with a situation in which they must weigh the activities they find important against the interests of their partners or relationships (cf. "situations of noncorrespondence;" Kelley & Thibaut, 1978). Individuals differ in what activities they view as desirable or important and, hence, as potentially self-sacrificial (e.g., to some individuals, spending time with their friends is important, whereas to others playing soccer is important). Accordingly, the current measure of willingness to sacrifice focuses on noncorrespondent situations in which issues or activities generated by the participants themselves (rather than the experimenter) are pitted against the well-being of the partner or relationship. This measure, which extends and complements methodologies inspired by game theory, has been developed and validated in prior research (Van Lange, Rusbult, et al., 1997).

Specifically, in measuring individuals' willingness to sacrifice, each individual was asked to list, in order, the three "most important activities in your life, other than your relationship with your partner." As in prior research (Van Lange, Rusbult et al., 1997), individuals listed life domains, such as parents and siblings, career, education, religion, friends, or pastimes (e.g., playing soccer, watching television). Then, we created a conflict between each of these (self-generated) activities and involvement with the partner, asking participants to rate the extent to which they were willing to give up each activity. Specifically, the instructions read: "Imagine that it were not possible to combine activity No. 1 with your current relationship (for reasons unrelated to your partner: It is

not his or her fault that these cannot be combined). To what extent are you willing to give up that activity?" For each activity, ratings were made using a 9-point scale (0 = *not at all willing to give up that activity*, 8 = *very strongly willing to give up that activity*). The resultant three-item scale exhibited acceptable internal consistency ($\alpha = .68$), and as would be desired, mean levels of sacrifice varied in increasing order of activity importance: The respective means for the first, second, and third most important activities were 1.67, 2.49, and 3.71.

In a parallel fashion, we measured individuals' beliefs regarding their partners' willingness to sacrifice. Participants first generated the first, second, and third most important activities in the partner's life. Subsequently, they were asked to "Imagine that it was not possible for your partner to combine activity No. 1 with your current relationship (for reasons unrelated to you: It is not your fault that these cannot be combined). To what extent do you think your partner would be willing to give up that activity?" For each activity, ratings were made using a 9-point scale (0 = *not at all willing to give up that activity*, 8 = *very strongly willing to give up that activity*). The resultant three-item scale revealed good internal consistency ($\alpha = .76$). As would be desired, mean levels of sacrifice varied in increasing order of activity importance: The respective means for the first, second, and third most important activities were 2.28, 3.10, and 4.09.

The instructions were identical at both locations at which the study was conducted (i.e., Chapel Hill and Amsterdam). The first page of the questionnaire described that the responses were anonymous, that they could complete this questionnaire at their leisure (although the instructions stated that participants should not think too long about one particular question), and that they should not page through the questionnaire but turn to the next page once they had completed all questions on the previous page. Also, the questionnaire used a fixed order in which the differing scales were administered (i.e., decomposed games, measures of commitment, satisfaction, alternatives, investment size, and both measures of willingness to sacrifice). However, there was one difference between the instructions used in both samples. In the U.S. sample, one's own willingness to sacrifice was assessed prior to assessing beliefs regarding partner's willingness to sacrifice. In the Dutch sample, we counterbalanced the order in which one's own versus partner's willingness to sacrifice were assessed. Preliminary analyses indicated that order had no systematic influence on levels of sacrifice or on the strength of links between sacrifice and other variables tapped in this work, so this variable will not be discussed further.

The analyses reported below are based on a total of 257 individuals (156 prosocials, 66 individualists, and 35 competitors); 42 individuals could not be classified in terms of their dominant social value orientation, and the data for another 37 were deleted because of missing values for the measures of commitment, satisfaction, alternatives, investments, one's own willingness to sacrifice, or partner's willingness to sacrifice. Thus, all of the analyses are based on an equal number of individuals. Preliminary analyses indicated that the results were not altered by using a less conservative selection procedure (i.e., when those with missing values were included in the analyses).

Results

Analysis overview. To test Hypotheses 1a–1c, Hypotheses 2a–2c, and Hypothesis 3, we performed both correlational and regression analyses. The results of correlational analyses are summarized in Table 1 and will be discussed in combination with the results of two distinct regression analyses. The first analysis focuses on differences between prosocials and individualists, regressing willingness to sacrifice onto commitment level, the contrast between prosocials and individualists, and the interaction of commitment level and this contrast. The second analysis focuses on differences between individualists and competi-

Table 1
Correlations Between Investment Model Variables and Willingness to Sacrifice in Study 1

Variable	Commitment	Satisfaction	Alternatives	Investments
Commitment		.74***	-.50***	.47***
Satisfaction			-.32***	.45***
Alternatives				-.26***
Willingness to sacrifice	.36***	.33***	-.33***	.33***
Prosocials	.23 _a **	.18 _a *	-.33 _b ***	.23 _a **
Individualists	.55 _b ***	.52 _b ***	-.57 _c ***	.52 _b ***
Competitors	.17 _a	.31 _{ab} *	-.02 _a	.48 _{ab} **

Note. Prosocials ($n = 156$), individualists ($n = 66$), competitors ($n = 35$). Correlations with different subscripts per column indicate significant differences ($p < .05$, tested after Fisher r -to- z transformation) between prosocials, individualists, and competitors in the size of the correlations of willingness to sacrifice with commitment, satisfaction, alternatives, and investments. Tests for correlations being different from zero are indicated by asterisk.

* $p < .05$. ** $p < .01$. *** $p < .001$.

tors, regressing willingness to sacrifice onto commitment level, the contrast between individualists and competitors, and the interaction of commitment level and this contrast. (We should note that these regressions analyses are also relevant to Hypothesis 3; support for this hypothesis would be revealed by effects for social value orientation contrasts. However, these tests will not be discussed because the regression analysis provides only tests of contrasts between two groups of social value orientation. Later, we will report the results of an analysis that compares all three groups of social value orientation, thus providing a more comprehensive test of Hypothesis 3.)⁴

Analyses focusing on prosocials versus individualists: Tests of Hypotheses 1 and 2. In the first analysis, we regressed willingness to sacrifice onto commitment level, the contrast between prosocials and individualists, and the interaction of commitment level with this contrast. Consistent with Hypothesis 1, the analysis revealed an association between commitment level and sacrifice, $\beta = .32$, $t(218) = 4.96$, $p < .001$. Table 1 reveals that greater commitment is associated with enhanced levels of sacrifice (see row labeled Willingness to sacrifice). Second, the analysis revealed a significant interaction of commitment level and the prosocials versus individualists contrast, $\beta = .14$, $t(218) = 2.10$, $p < .05$. Consistent with Hypothesis 2, Table 1 reveals a greater association between commitment and sacrifice for individualists than for prosocials (the link between commitment and sacrifice was significant albeit weaker for prosocials).

Next, continuing our focus on the difference between prosocials and individualists, we performed three specific regression analyses in order to test the two sets of subhypotheses (Hypotheses 1a, 1b, 1c and Hypotheses 2a, 2b, 2c). In these analyses, sacrifice was regressed onto each commitment-enhancing variable (i.e., satisfaction, alternatives, and investments), the prosocials versus individualists contrast, and the interaction of each commitment-enhancing variable and this contrast. Relevant to Hypotheses 1a, 1b, and 1c, these analyses revealed significant main effects of each commitment-enhancing variable: satisfaction, $\beta = .28$, $t(218) = 4.24$, $p < .001$; quality of alternatives, $\beta = -.41$, $t(218) = -6.67$, $p < .001$; and investment size, $\beta = .31$, $t(218) = 4.86$, $p < .001$. Consistent with Hypotheses 1a, 1b, and 1c, Table 1 reveals that greater willingness to sacri-

fice was associated with high satisfaction, poor alternatives, and large investment size (see row labeled Willingness to sacrifice).

Relevant to Hypotheses 2a, 2b, and 2c, these analyses revealed two significant interactions of a commitment-enhancing variable with the prosocials versus individualists contrast. First, a significant interaction of satisfaction and this contrast, $\beta = .14$, $t(218) = 2.21$, $p < .05$, revealed a greater association between satisfaction and sacrifice for individualists than for prosocials (the link between satisfaction and sacrifice was significant albeit weaker for prosocials; see Table 1). Second, a significant interaction of quality of alternatives and the contrast, $\beta = -.13$, $t(218) = -2.12$, $p < .05$, revealed a greater association between quality of alternatives and sacrifice for individualists than for prosocials (the link between quality of alternatives and sacrifice was significant albeit weaker for prosocials; see Table 1). Third, the interaction of investment size and the contrast was marginally significant, $\beta = .12$, $t(218) = 1.89$, $p < .10$, revealing a somewhat more pronounced association between investment size and sacrifice for individualists than for prosocials (the link between investment size and sacrifice was significant albeit weaker for prosocials; see Table 1). Thus, these analyses provide good evidence in support of Hypothesis 2a and 2b and somewhat weaker support for Hypothesis 2c.

Analyses focusing on individualists versus competitors: Tests of Hypotheses 1 and 2. We conducted an analysis in which willingness to sacrifice was regressed onto commitment level, the contrast between individualists and competitors, and the in-

⁴ One could argue that it would be desirable to test Hypotheses 1–3, as well as Hypotheses 4 and 5, in a single analysis, regressing willingness to sacrifice onto commitment, social value orientation, beliefs regarding partner's willingness to sacrifice (as well as onto gender and nation) and all possible interactions. We did not perform such an analysis. The most important reason was that we anticipated a substantial link between one's own willingness to sacrifice and beliefs regarding partner's willingness to sacrifice because of the several mechanisms that are likely to promote such a link (i.e., reciprocity, assumed similarity, and self-justification). Accordingly, beliefs regarding partner's willingness to sacrifice would be likely to account for substantial amounts of variance, leaving lower levels of variance to be explained by other variables that were more central to the current research.

teraction of commitment level and this contrast. Consistent with Hypothesis 1, the regression analysis revealed an association between commitment level and sacrifice, $\beta = .41$, $t(97) = 4.57$, $p < .001$. Table 1 reveals that greater commitment is associated with enhanced levels of sacrifice (see row labeled Willingness to sacrifice). Second, the analysis revealed a marginal interaction of commitment level and the contrast, $\beta = .16$, $t(218) = 1.83$, $p < .10$. Consistent with Hypothesis 2, Table 1 reveals a greater association between commitment and sacrifice for individualists than for competitors (the link between commitment and sacrifice was nonsignificant for competitors).

To test two sets of specific hypotheses (i.e., Hypotheses 1a, 1b, and 1c, and Hypotheses 2a, 2b, and 2c), we performed three specific regression analyses. In these analyses, sacrifice is regressed onto each commitment-enhancing variable (i.e., satisfaction, alternatives, and investments), the contrast between individualists and competitors, and the interaction of each commitment-enhancing variable with this contrast. Consistent with Hypotheses 1a, 1b, and 1c, these analyses revealed significant main effects of each commitment-enhancing variable: satisfaction, $\beta = .45$, $t(97) = 5.03$, $p < .001$; quality of alternatives, $\beta = -.39$, $t(97) = -4.36$, $p < .001$; and investment size, $\beta = .50$, $t(97) = 5.76$, $p < .001$. Relevant to Hypotheses 2a, 2b, and 2c, the analyses revealed one significant interaction involving the individualists versus competitors contrast, the interaction between quality of alternatives and social value orientation, $\beta = -.28$, $t(97) = -3.12$, $p < .01$. Consistent with Hypothesis 2b, Table 1 reveals a greater association between quality of alternatives and sacrifice for individualists than for competitors (the link between quality of alternatives and sacrifice was nonsignificant for competitors). Neither the interaction of satisfaction and the contrast, $\beta = .11$, $t(97) = 1.32$, $n.s.$, nor the interaction of investment size and the contrast, $\beta = .03$, $t(97) = .40$, $n.s.$, were significant. Thus, the links between satisfaction and sacrifice and investment size and sacrifice were not significantly more pronounced for individualists than for competitors (see also Table 1).⁵

Mean levels of sacrifice: Tests of Hypothesis 3. To provide a comprehensive test of Hypothesis 3, we conducted a 3 (social value orientation: prosocials vs. individualists vs. competitors) \times 2 (nation) \times 2 (gender) analysis of variance (ANOVA) on willingness to sacrifice. Relevant to Hypothesis 3, we observed a marginally significant main effect of social value orientation, $F(1, 245) = 2.78$, $p < .10$. Prosocials ($M = 2.77$, $SD = 1.83$) exhibited greatest levels of sacrifice, immediately followed by individualists ($M = 2.66$, $SD = 1.96$), with competitors exhibiting lowest levels of sacrifice ($M = 2.16$, $SD = 1.87$). Planned comparisons revealed that the only significant difference was the difference between prosocials and competitors, $t(189) = 1.76$, $p < .05$.

Relationships among commitment and commitment-enhancing variables. Consistent with the assumption that commitment level represents three specific commitment-enhancing variables (i.e., satisfaction, quality of alternatives, and investment size), Table 1 reveals that greater levels of commitment are associated with higher levels of satisfaction, with lower quality of alternatives, and with larger investment size (see row labeled Commitment).⁶ We should note that very few of these links were moderated by social value orientation. Of 18 tests comparing differences in the size of the correlations between prosocials,

individualists, and competitors (six correlations for each group of social value orientation), only one comparison was significant, tested after Fisher's r -to- z transformation: For prosocials, there was a lower correlation between satisfaction and investments, $r(156) = .37$, than for individualists, $r(66) = .60$; $z = 2.04$, $p < .05$.

Next, we examined possible differences between prosocials, individualists, and competitors, as well as between U.S. and Dutch participants, in levels of commitment, satisfaction, quality of alternatives, and investments. Accordingly, we conducted a series of 3 (social value orientation) \times 2 (nation) \times 2 (gender) ANOVAs. These analyses yielded no significant main effects or interactions involving social value orientation. Thus, these analyses reveal that social value orientation does not tend to be systematically related to any of the investment model variables, nor does it moderate the relationships among investment model variables.⁷

Associations between self-sacrifice and partner sacrifice: Tests of Hypotheses 4 and 5. To test Hypotheses 4 and 5, we computed the correlation between level of sacrifice ascribed to self (i.e., self-sacrifice) and level of sacrifice ascribed to the partner (i.e., partner sacrifice). Consistent with Hypothesis 4, the association between these variables was quite strong for all groups of social value orientations: prosocials, $r(156) = .68$, $p < .001$; individualists, $r(66) = .52$, $p < .001$; and competitors, $r(35) = .66$, $p < .001$. Consistent with Hypothesis 5, the correlation obtained for prosocials was significantly greater than that for individualists, $z = 1.69$, $p < .05$. However, the correlations for prosocials and competitors did not significantly differ.

Next, we tested Hypothesis 5 in a 3 (social value orientation) \times 2 (nation) \times (gender) \times 2 (target of sacrifice: self vs. partner) ANOVA, the latter variable being a within-participant factor. This analysis revealed a main effect for target of sacrifice, $F(1, 245) = 23.81$, $p < .001$. Levels of sacrifice attributed to

⁵ These correlational and regression analyses were also complemented by a series of 3 (social value orientation) \times 2 (commitment level: high vs. low) \times 2 (gender) \times 2 (nation) ANOVAs using median splits to discriminate between high versus low commitment (satisfaction, alternatives, and investments). These analyses provided equally strong or stronger evidence for our hypotheses (i.e., Hypotheses 1, 1a–1c; 2, 2a–2c). We also performed a series of regression analyses in which we included possible main effects and interactions involving nation and gender. These regressions also provided evidence in support of our hypotheses. As was the case for the ANOVAs, these regression analyses revealed no consistent evidence in support of main effects or interactions involving nation or gender.

⁶ These correlations were complemented by a regression analysis in which commitment was regressed simultaneously onto satisfaction, alternatives, and investment. Consistent with prior research (e.g., Rusbult et al., 1991), this analysis revealed that satisfaction, $\beta = .60$, $t = 14.80$, $p < .001$; alternatives $\beta = -.28$, $t = -7.46$, $p < .001$; and investments $\beta = .12$, $t = 3.12$, $p < .005$ made independent contributions toward predicting commitment, providing evidence for the claim that commitment is enhanced by each of these investment model variables.

⁷ This analysis did reveal a main effect of nation on quality of alternatives, $F(1, 245) = 22.53$, $p < .001$, indicating that, relative to U.S. participants, Dutch participants perceived their alternatives as less attractive (M s = 4.63 vs. 3.73; SD s = 1.39 and 1.14). Also, there was a significant main effect of gender on commitment, $F(1, 245) = 7.55$, $p < .01$, revealing that women ($M = 6.02$, $SD = 1.64$) exhibited greater commitment than did men ($M = 5.27$, $SD = 1.83$).

the partner ($M = 3.20$, $SD = 2.10$) were greater than those attributed to self ($M = 2.66$, $SD = 1.87$). Consistent with Hypothesis 5, a significant interaction of social value orientation and target of sacrifice, $F(2, 245) = 3.09$, $p < .05$, revealed that this partner versus self difference was most pronounced for individualists ($M_s = 3.61$ vs. 2.66, a difference of 0.95; $SD_s = 2.25$ and 1.96), followed by competitors ($M_s = 2.86$ vs. 2.16, a difference of 0.70; $SD_s = 1.93$ and 1.87), and being least pronounced for prosocials ($M_s = 3.11$ vs. 2.77, a difference of 0.34; $SD_s = 2.06$ and 1.82). Subsequent planned comparisons revealed that these differences were significant only for the contrast between prosocials and individualists, $t(220) = 2.45$, $p < .05$. The only other significant effect we observed was an interaction effect of gender and nation, $F(1, 245) = 5.41$, $p < .05$, revealing that levels of sacrifice ascribed to self and the partner were greater among Dutch men ($M = 3.36$, $SD = 1.89$) than among U.S. men ($M = 2.54$, $SD = 1.76$), whereas such differences were not significant among Dutch women and U.S. women ($M_s = 3.15$ vs. 2.84; $SD_s = 1.66$ and 1.71).

Discussion

Study 1 provided good evidence in support of two central hypotheses (i.e., Hypotheses 1 and 2). Consistent with Hypothesis 1, commitment was associated with willingness to sacrifice, and consistent with Hypothesis 2, the link between commitment and willingness to sacrifice was more pronounced among individualists than among prosocials (and to some extent competitors). Also, each of the commitment-enhancing variables was associated with willingness to sacrifice (i.e., evidence in support of Hypothesis 1a–1c), and the links between satisfaction and sacrifice and between alternatives and sacrifice were more pronounced among individualists than among prosocials or competitors (i.e., evidence in support of Hypotheses 2a and 2b; contrary to Hypothesis 2c, the link between investment size and sacrifice was not significantly more pronounced among individualists than among prosocials or competitors). However, Study 1 revealed weak evidence in support of Hypothesis 3, the prediction that prosocials would exhibit a greater willingness to sacrifice than individualists and competitors (i.e., there was some tendency for competitors to exhibit lower willingness to sacrifice relative to prosocials).

Congruent with Hypothesis 4, Study 1 revealed a strong association between one's own willingness to sacrifice and perceived partner's willingness to sacrifice. As noted earlier, in addition to the desire for reciprocity, this link could be accounted for by tendencies toward assumed or real similarity, post hoc justification, or modeling. However, given that this link was found to be more pronounced among prosocials than among individualists (i.e., some evidence in support of Hypothesis 5), it seems likely that tendencies toward reciprocity, at least in part, accounted for the association between one's own willingness to sacrifice and beliefs regarding partner's willingness to sacrifice.

Study 2

Study 2 was designed to extend and complement Study 1 in a variety of ways. First, given that Study 1 assessed social value orientation and commitment just before the measurement of

willingness to sacrifice, it is possible that the contiguity of these measures sensitized participants to respond in a consistent manner (e.g., self-presentation concerns). Also, in light of the evidence that prosocial behavior tends to be promoted by positive mood (cf. Isen, 1987), we cannot exclude the possibility that temporary states (e.g., day-to-day differences in mood) influenced all three measures in a similar manner. (However, this latter argument is at odds with the finding that the measurement of social value orientation is not related to mood; Van Lange & Schuyt, 1997.) Thus, it becomes important to assess both commitment and social value orientation in such a manner that their links with willingness to sacrifice are unlikely to be influenced by artifacts stemming from tendencies toward self-presentation or third variables such as temporary mood states.

Study 2 assessed commitment and social value orientation at Time 1 and measured willingness to sacrifice at Time 2 research sessions conducted 9 months later. Accordingly, Study 2 sought to provide evidence relevant to the claim that earlier levels of commitment are associated with later sacrifice. Also, on the basis of the assumption that social value orientation reflects relatively stable individual differences, we examined whether social value orientation moderates the link between the presumed antecedent (i.e., early commitment) and later levels of willingness to sacrifice. Given that one's own willingness to sacrifice and beliefs regarding partner's willingness to sacrifice were assessed at Time 2, Hypotheses 4 and 5 will be tested in a cross-sectional manner.

Study 2 examines couples rather than individuals, thereby extending Study 1 in at least two respects. First, we wished to examine actual reciprocity, or mutuality of willingness to sacrifice, predicting an association between the partners' self-reported willingness to sacrifice. Indeed, a demonstration of such an association suggests some desire for reciprocity that is unlikely to be accounted for by tendencies toward assumed similarity or self-justification. Thus, Hypothesis 4 was tested by examining not only the link between one's own willingness to sacrifice and beliefs regarding partner's willingness to sacrifice, but also the link between one's own willingness to sacrifice and partner's self-reported willingness to sacrifice. Second, as noted earlier, the measure of willingness to sacrifice has been validated in prior research (e.g., links with actual sacrifice, links with actual breakup; Van Lange, Rusbult, et al., 1997). To further evaluate the validity of our measure of willingness to sacrifice, we wished to demonstrate that an individual's willingness to sacrifice exhibits a link with the partner's beliefs regarding the individual's willingness to sacrifice.

In a more exploratory vein, the current research examines whether commitment would be predictive of breakup assessed 18 months later, thereby seeking to complement prior research that revealed that greater levels of commitment are associated with lower odds of breakup over smaller periods of time (e.g., 6 months, Rusbult, 1983; 8 weeks, Van Lange, Rusbult, et al., 1997). Moreover, Study 2 was conducted in the Netherlands, thereby complementing the two above studies that were conducted in the United States.

Method

Participants. A total of 37 Dutch couples (i.e., 74 individuals) participated in both Time 1 and Time 2 research sessions. Participants were

recruited by means of an advertisement placed in a local university paper, inviting couples who had been involved for at least 3 months to participate in a study of dating relationships. At Time 1, the average age of the 74 participants was 22 years. They had been involved for about 2 years and 6 months (30.14 months). For Time 1 research sessions, we recruited 86 couples. However, at Time 2, 9 months later, 10 couples' relationships had ended and 39 couples could not be contacted or were unable or unwilling to participate (i.e., in the Netherlands, it has become fairly common for students to go abroad for substantial amounts of time to complete their studies; also, several participants had finished their studies and found jobs elsewhere; so, frequently, one or both partners could not be contacted; participants who did not participate in Time 2 sessions did not significantly differ from Time 2 participants in terms of commitment level or social value orientation). At both Times 1 and 2, we administered several other measures (e.g., attachment style and measures regarding direct and indirect experience with relationships); however, because these measures are not relevant to the present research, they will not be discussed.

Procedure. One to four couples attended each research session. Upon arrival, each couple was greeted and escorted to one of eight cubicles, preventing them from communicating with each other. In each cubicle, a participant was seated in front of a computer, which administered the questionnaires. After receiving brief instructions regarding computer use, participants were told that they could consult the experimenter if they had problems understanding the instructions. At the end of both research sessions, participants were debriefed and paid about \$9.

Time 1: Measuring social value orientation and commitment. Social value orientation was assessed using the same series of nine decomposed games as well as the same criteria for classification as in Study 1. We identified 34 prosocials (52%), 21 individualists (32%), and 10 competitors (15%), a distribution that is similar to that obtained in prior research (see Study 1). A total of 9 individuals made fewer than six consistent choices and were not classified. Moreover, the distributions of social value orientations among men and women were not significantly different, $\chi^2(2, N = 65) = 2.10, n.s.$ Also, disregarding the unclassifiables, 11 couples were comprised of individuals with identical social value orientations (7 couples with 2 prosocials, 2 couples with 2 individualists, and 2 couples with 2 competitors), and 17 couples were comprised of individuals with different social value orientations. Thus, there was no reliable relationship between individuals' social value orientations and those of their partners, $\chi^2(2, N = 65) = 6.65, n.s.$

Given the low base rate of competitors (i.e., 10%–20%; cf. Liebrand & Van Run, 1985; Van Lange & Kuhlman, 1994), it is not uncommon in research on social value orientation to perform tests in which just two groups of social value orientation are compared. For some designs and some topics of research, it is common practice to either combine individualists and competitors into one group of pro-selfs (e.g., Iedema & Poppe, 1994; Kramer et al., 1986; Liebrand, Jansen, Rijken, & Suhre, 1986) or to exclude competitors from the analyses (e.g., Sattler & Kerr, 1991; Van Vugt et al., 1996). Given that our hypotheses involve differences between individualists and competitors, we could not combine these two groups; thus, in our analyses, we focus on differences between prosocials and individualists, excluding competitors ($n = 10$) because of low sample size.

The instrument used to measure commitment level was based on previous work regarding the investment model, using Dutch translations. Commitment level was measured with eight items ($\alpha = .79$).

Time 2: Measuring willingness to sacrifice. Willingness to sacrifice (i.e., one's own sacrifice) as well as beliefs regarding partner's willingness to sacrifice were assessed as in Study 1. These respective measures exhibited acceptable internal consistencies ($\alpha = .78$ and $.78$). As would be desired, mean levels of own sacrifice varied in increasing order of activity importance: The respective means for the first, second, and third

Table 2

Results of Correlational and Regression Analyses Examining Associations Between Time 1 Commitment and Time 2 Willingness to Sacrifice in Study 2

Variable	Correlation with sacrifice	β	Overall model		
			F	df	p
Main effect					
Commitment	.33**	.27*	4.20	3, 51	<.01
Social value	.26*	.22†			
Commitment \times Social Value		.26*			
Among prosocials	.04 _a				
Among individualists	.53 _b **				

Note. Prosocials ($n = 34$), individualists ($n = 21$). Correlations with different subscripts indicate significant differences ($p < .05$, tested after Fisher's r -to- z transformation) between prosocials and individualists in the size of the correlations of commitment with willingness to sacrifice. Tests for correlations and betas being different from zero are indicated by asterisk.

* $p < .05$. ** $p < .01$. † $p < .10$ (marginally significant).

most important activities were 2.84, 3.14, and 3.49. Moreover, mean levels of beliefs regarding partner willingness to sacrifice also varied in increasing order of activity importance: The respective means for the first, second, and third most important activities were 2.78, 3.55, and 3.77. Given that tests of Hypotheses 1 through 3 were considered more central to the current research relative to tests of Hypotheses 4 and 5 (and given that order did not affect the results of Study 1), we assessed one's own willingness to sacrifice prior to beliefs regarding partner's willingness to sacrifice.

Results and Discussion

To test Hypotheses 1, 2, and 3, we performed both correlational and regression analyses, the results of which are summarized in Table 2. The latter analysis regressed willingness to sacrifice onto the main effects of commitment level and social value orientation (i.e., prosocials vs. individualists) and the interaction of commitment level with social value orientation. This analysis revealed a significant association between commitment level and sacrifice, $t(51) = 2.04, p < .05$, paralleling the result that greater commitment is significantly correlated with enhanced levels of sacrifice (see column labeled Correlation with sacrifice in Table 2); this finding supports Hypothesis 1. Second, relevant to Hypothesis 2, the analysis revealed a significant interaction of commitment level and social value orientation, $t(51) = 2.17, p < .05$. Consistent with Hypothesis 2, Table 2 reveals a significantly stronger association between commitment and sacrifice among individualists than among prosocials (indeed, the association between commitment and sacrifice was nonsignificant among prosocials).⁸

Recall that the participants in this study were couples, rather than independent participants. Accordingly, the data for partners are not statistically independent. Therefore, we explored the

⁸ These correlational and regression analyses were complemented by an ANOVA using median splits to discriminate between high versus low commitment. This analysis provided equally strong or stronger evidence for Hypotheses 1 and 2.

links between commitment and sacrifice separately for women and men. Among women, the link between commitment and sacrifice was greater among individualists, $r(11) = .46$, than among prosocials, $r(19) = -.06$. Similarly, although somewhat less pronounced, among men this link was somewhat greater among individualists, $r(10) = .25$, than among prosocials, $r(15) = .06$. Although low sample size does not allow for stringent tests of significance, the overall pattern is congruent with Hypothesis 2.

Relevant to Hypothesis 3, a significant, positive correlation between social value orientation and willingness to sacrifice revealed that prosocials exhibited lower, rather than higher, levels of willingness to sacrifice (i.e., prosocials were coded as 0 and individualists as 1). Indeed, contrary to Hypothesis 3, examination of the means revealed that individualists ($M = 3.33$, $SD = 1.77$) exhibited a greater willingness to sacrifice than did prosocials ($M = 2.45$, $SD = 1.44$). This main effect for social value orientation was marginal in the regression analysis, $t(51) = 1.72$, $p < .10$.⁹

To test Hypothesis 4, we assessed both perceived reciprocity and actual reciprocity. Relevant to perceived reciprocity, we observed a significant association between one's own willingness to sacrifice and beliefs regarding partner's willingness to sacrifice. Using randomization procedures (i.e., random assignment of partners within a couple to Partner 1 and Partner 2), this correlation was significant for both Partner 1, $r(37) = .81$, $p < .001$, and Partner 2, $r(37) = .73$, $p < .001$. Relevant to actual reciprocity, we observed a significant association between one's own willingness to sacrifice and actual partner's willingness to sacrifice, $r(37) = .41$, $p = .01$. And in support of the validity of our measure of willingness to sacrifice, we observed a significant association between individual's own willingness to sacrifice and partner's beliefs regarding the individual's willingness to sacrifice: for Partner 1, $r(37) = .33$, $p < .05$; for Partner 2, $r(37) = .53$, $p < .001$.

Given low sample size (34 prosocials, 21 individualists) and the fact that couples consisted of partners having identical or different social value orientations, the statistical power of tests concerning Hypothesis 5 is exceedingly small. Hence, it is not surprising that our analysis did not reveal significant moderation by social value orientation. However, given that most findings are in the predicted direction, Hypothesis 5 should be tested in future research using a larger sample size.¹⁰

Finally, this research explored the association between Time 1 commitment and breakup at Time 2 and Time 3 (i.e., 18 months after Time 1, we telephoned participants to collect information regarding breakup). By Time 2, 10 relationships had ended, 56 relationships persisted, and we were unable to obtain this information for 20 relationships; by Time 3, 15 relationships had ended, 40 relationships persisted, and we were unable to obtain this information for 31 relationships. The link between commitment and breakup at Time 2 and Time 3 was assessed by examining (a) individuals' levels of commitment and (b) the average level of commitment across both partners. At Time 2, results revealed that levels of commitment were somewhat higher among partners in relationships that persisted ($M = 6.60$, $SD = 1.06$) than among partners in relationships that ended ($M = 6.11$, $SD = 1.53$), although not significantly so: For individuals, $F(1, 130) = 3.20$, $p < .10$; for couples, $F(1, 64) = 2.12$,

$p = .15$. However, at Time 3, we observed that levels of commitment were higher among partners in relationships that persisted ($M = 6.87$, $SD = .82$) than among partners in relationships that ended ($M = 6.26$, $SD = 1.21$); for individuals, $F(1, 108) = 9.11$, $p < .01$; for couples, $F(1, 53) = 6.56$, $p < .05$. (Unfortunately, we could not reliably assess the association between Time 2 willingness to sacrifice and breakup because only five relationships ended between Time 2 and Time 3.) Thus, given that Time 1 and Time 3 were separated by 1½ years, the current research complements prior research on commitment (i.e., Rusbult, 1983; Van Lange, Rusbult, et al., 1997) by providing evidence in support of the role of commitment in understanding relationship maintenance over a fairly substantial period of time.

General Discussion

The primary goal of the present research was to examine both the link between dependence-relevant features of relationships and willingness to sacrifice and whether preexisting individual differences in social value orientations might moderate this link. Consistent with Hypothesis 1, both studies revealed a significant link between commitment and willingness to sacrifice. Consistent with Hypothesis 2, the link between commitment and sacrifice was more pronounced among individualists than among prosocials; moreover, Study 1 revealed that this link was somewhat more pronounced among individualists than among competitors. Both studies failed to find support for Hypothesis 3, the prediction that prosocials would exhibit greater willingness to sacrifice than would individualists or competitors (although Study 1 revealed greater levels of sacrifice among prosocials than among competitors).

Before considering these findings in greater detail, we wish

⁹ We have further explored the meaning of the main effect for social value orientation. A 2 (social value orientation) \times 2 (gender) ANOVA revealed an interaction of social value orientation and gender, $F(1, 51) = 9.91$, $p < .01$, demonstrating that prosocial men ($M = 2.74$, $SD = 1.60$) tended to exhibit at least as much willingness to sacrifice as did individualistic women ($M = 2.42$, $SD = 1.48$); however, prosocial women ($M = 2.09$, $SD = 1.17$) exhibited lower willingness to sacrifice than did individualistic women ($M = 4.33$, $SD = 1.54$). Thus, it would seem that among women, individualists may exhibit greater levels of sacrifice than prosocials.

¹⁰ The correlation between one's own willingness to sacrifice and perceived partner sacrifice was somewhat more pronounced among prosocials, $r(34) = .73$, $p < .001$, than among individualists, $r(21) = .59$, $p < .001$, although not significantly so, $z = .85$, *ns*. Also, a 2 (social value orientation) \times 2 (target of sacrifice: self vs. partner) ANOVA revealed no interaction of social value orientation and target of sacrifice, $F(1, 53) = .06$, *ns*. As in Study 1, a marginal main effect for target, $F(1, 53) = 3.62$, $p = .06$, revealed that participants believed that partner willingness to sacrifice ($M = 3.12$, $SD = 1.60$) was somewhat greater than their own willingness to sacrifice ($M = 2.79$, $SD = 1.62$). Paralleling an earlier result, the analysis revealed a main effect for social value orientation, $F(1, 53) = 5.50$, $p < .05$, indicating that willingness to sacrifice for both self and partner was greater among individualists ($M = 3.52$, $SD = 1.49$) than among prosocials ($M = 2.60$, $SD = 1.38$). Finally, focusing on actual reciprocity, we observed the average correlation between both partner's willingness to sacrifice to be somewhat greater among prosocials, $r(34) = .35$, than among individualists, $r(21) = .19$, but not significantly so.

to outline two broad interrelated implications of the current research. Relevant to interdependence theory, the present findings provide evidence in support of the claim that social value orientations reflect transformational tendencies that affect responsiveness to dependence-relevant features of relationships. Such differences indicate the necessity of simultaneously evaluating the different embodiments of transformation of motivation (i.e., dispositions, dependence-relevant features of relationships), thereby contributing to our understanding of the specific motivations that may underlie willingness to sacrifice in close relationships. A related implication of the current findings follows from prior research revealing somewhat weak (and occasionally inconsistent) links between dispositional variables and prosocial behavior in the real world (e.g., Batson, Bolen, Cross, & Neuringer-Benefiel, 1986; Eisenberg, 1986; Krebs, 1970; however, see McClintock & Allison, 1989). Researchers have addressed these weak effects, advancing person by situation approaches or multiplicative models of dispositional variables (e.g., Endler & Magnusson, 1976; Kenrick & Funder, 1988; Knight, Johnson, Carlo, & Eisenberg, 1994; Staub, 1978). The current findings are consistent with these latter approaches, in that in accounting for willingness to sacrifice, the impact of social value orientations was modest (i.e., Study 1 revealed weak support for Hypothesis 3), absent, or even contrary to our expectations (Study 2). In contrast, interactions of social value orientation with commitment level were consistently observed. Thus, it seems useful to consider the interactions of dispositional orientations and tendencies following from relationship-specific features in addition to additive models focusing on either dispositional orientations or relationship-specific orientations.

The theoretical importance of the current research, at least in part, derives from the fact that Disposition \times Features-of-Relationships interactions help to understand why features of relationships may promote willingness to sacrifice (cf. Snyder & Ickes, 1985). The current research focused on a well-documented model of relationship functioning, the investment model, that centers on dependence-relevant features of relationships (e.g., Rusbult, 1983; Rusbult et al., 1991). Consistent with the investment model (i.e., Hypotheses 1, 1a–1c), our findings revealed that high levels of commitment (and high levels of satisfaction, low levels of perceived alternatives, and large investment size) were associated with greater willingness to sacrifice. The current findings complement prior research by Van Lange, Rusbult, et al. (1997) by demonstrating a link between commitment and willingness to sacrifice assessed 9 months later, thereby indicating that this link is not an artifact stemming from response tendencies (e.g., self-presentation) or temporary states (e.g., day-to-day differences in mood). Moreover, it is interesting to note that the present interdependence orientation, at least in part, identifies the origins of prosocial motivation in the features of interdependence characterizing a relationship, assuming that important sources of prosocial motivation may be relationship-specific. As such, the current orientation, and our support for the link between commitment and willingness to sacrifice, extend and complement alternative conceptualizations of prosocial motivation, which have tended to emphasize dispositional or normative origins of prosocial motivation (cf. Eisenberg & Fabes, 1991; McClintock & Liebrand, 1988; Staub, 1978).

At the same time, commitment (as well as satisfaction, alter-

natives, and investments) does not tell the whole story in understanding willingness to sacrifice in ongoing relationships. Although each of these investment model variables generally was associated with willingness to sacrifice, most of these links were more pronounced among individualists than among prosocials and, to some extent, competitors. Such interactions indicate that the links between these dependence-relevant features of relationships and willingness to sacrifice can be understood, at least in part, in terms of concern with long-term personal well-being, rather than an intrinsic concern with partner well-being or a concern deriving from competition. The results of Study 1 revealed that the links between investment model variables and willingness to sacrifice continued to be significant for prosocials (and, to some extent, for competitors as well), suggesting that these individuals are not alien to the pursuit of long-term personal well-being (i.e., they, too, tend to assign positive value to outcomes for self). But, because a concern with good outcomes for self can be seen as just one of the goals pursued by prosocials and competitors, these individuals should indeed be less responsive to dependence-relevant features of relationships than individualists, for whom the pursuit of personal well-being, immediate or distant, is the primary or exclusive goal. Alternatively, it is plausible that the link between commitment and sacrifice should not be explained merely in terms of concern with long-term self-interest. Indeed, it is likely that commitment to some degree is associated with feelings of psychological attachment in such a manner that it promotes concern with partner's well-being as well as one's own well-being. Thus, the significant albeit modest links between commitment and sacrifice among prosocials may also be attributed to some propartner concerns.

The current research contributes to prior research on social value orientation. Although there is increasing evidence in support of the ecological validity of social value orientation, it is important to note that the vast majority of studies on social value orientation have focused on behavior in experimental games. Also, to our knowledge not one of these studies has examined the role of social value orientations in the context of existing relationships in which partners share a history and a future of interdependence. However, as noted earlier, contrary to Hypothesis 3, prosocials did not exhibit greater willingness to sacrifice than individualists. In retrospect, this may not be surprising. The current research examined ongoing close relationships, which presumably are characterized by relatively high levels of dependence and long-term orientation. Hence, it is understandable that individualists, like prosocials, tend to exhibit fairly high levels of sacrifice.

A second goal of the present research was to examine the link between one's own willingness to sacrifice and (beliefs regarding) partner's willingness to sacrifice. In support of Hypothesis 4, results revealed (a) a strong association between one's own willingness to sacrifice and beliefs regarding the partner's willingness to sacrifice (Studies 1 and 2), and (b) a significant, albeit somewhat weaker association between one's own willingness to sacrifice and actual partner's willingness to sacrifice (Study 2). How do we account for these effects? Consistent with interdependence theory, and theories relevant to interdependence, we believe that these findings, at least in part, are accounted for by the desire for reciprocity. Two findings, in particular, are congruent with this assumption. First, the link

between one's own willingness to sacrifice and beliefs regarding partner's willingness to sacrifice was somewhat more pronounced among prosocials than among individualists (Study 1), a finding that is consistent with prior research on experimental games (cf. Hypothesis 5).¹¹ Second, Study 2 revealed a significant association between partners' actual willingness to sacrifice. However, given that the link between one's own willingness to sacrifice and beliefs regarding partner's willingness to sacrifice was somewhat more pronounced than the link between the partners' willingness to sacrifice, it is likely that mechanisms other than reciprocity underlie the former link (e.g., tendencies toward assumed or real similarity, post hoc self-justification, and modeling; however, the absence of a significant association between one's own and partner's social value orientation is not consistent with the real similarity explanation).

We should also briefly comment on the general finding that individuals ascribed somewhat greater levels of sacrifice to their partners than to themselves. Although this finding is not inconsistent with our predictions (i.e., this pattern was anticipated for individualists and competitors), it may also be that individuals to some extent constructed overly positive (and perhaps illusory) images of their partners. Indeed, it is logically impossible that all of our partners are more self-sacrificial than we are ourselves (for related reasoning regarding positive illusion, see Taylor & Brown, 1988). Consistent with this view, recent research has revealed that for global attributes, individuals tend to view their partners very favorably, even more positively than they view themselves (Murray, Holmes, & Griffin, 1996). The tendency to attribute prosocial intentions and motivations to the partner reflects trust and may be functional because it helps individuals feel more secure or confident about their partners and relationships (cf. Holmes & Murray, 1996).¹²

Before closing, we should note that the current findings need to be considered in light of the following limitations. Although Study 2 assessed commitment a substantial period prior to willingness to sacrifice, the current research did not directly assess the direction of causality underlying the link between commitment and willingness to sacrifice; also, both studies did not address in any way the causal direction underlying the link between one's own willingness to sacrifice and partner's willingness to sacrifice. Although this research assumes that the subjective experience of dependence is an important determinant of willingness to sacrifice, it is also possible that willingness to sacrifice might promote greater feelings of dependence or commitment. For example, acts of sacrifice may later be experienced as investments that, over time, sustain or strengthen commitment. In this regard, it may be appropriate to regard the causal relationship between commitment and sacrifice as bidirectional. Similarly, the link between one's own willingness to sacrifice and partner's willingness to sacrifice may be largely bidirectional, in that these variables may feed back on each other over time and unfold in concert over the course of a relationship (cf. Van Lange, Rusbult, et al., 1997).

From these perspectives, we cannot rule out alternative explanations for the current findings. One such interpretation is based on the notion that individualists may be more likely than prosocials to construe self-sacrificial acts as costly, and therefore experience greater discomfort (because such acts conflict with immediate self-interest, whereas the long-term outcomes for self

to some extent are uncertain). Such uneasiness may be resolved by a process of self-justification, by coloring their perceptions of dependence-relevant features of relationships as well as their perceptions of partner willingness to sacrifice (e.g., "I engaged in self-sacrificial, costly activities, but my partner is likely to sacrifice even more"; cf. Messé & Sivacek, 1979). Competitors should be less likely to engage in such self-justification processes because they exhibit relatively low levels of willingness to sacrifice and hence may experience less discomfort.

Second, this research used two distinct samples (i.e., Study 1 was conducted in the United States and in the Netherlands), yet focused on one self-report measure that assessed willingness to sacrifice rather than actual self-sacrificial behaviors. One important reason is that the current measurement of willingness to sacrifice (which is inspired by forced-choice methodology) has been demonstrated to have good validity; it exhibits good test-retest reliability, tends to be independent of tendencies toward favorable self-presentation, is correlated with a behavioral measure of sacrifice, and is predictive of whether relationships persist versus end (Van Lange, Rusbult, et al., 1997). Moreover, Study 2 provided some evidence for the validity of our measurement, in that self-reported willingness to sacrifice is correlated with the partner's description of the individual's willingness to sacrifice. Thus, there is good reason to believe that the current measure of willingness to sacrifice may be quite predictive of actual sacrifice (even though actual willingness to sacrifice should consist of willingness to sacrifice and the frequency or intensity with which the relationship calls for sacrifice).

Third, this work focused on individuals who were involved in dating relationships (rather than those in longer term marital relationships). It is plausible that commitment may be somewhat higher among more mature relationships and that the sources for commitment are somewhat different (e.g., commitment among mature relationships may be more strongly based

¹¹ Study 1 failed to find a significantly stronger link between own and partner willingness to sacrifice for prosocials relative to competitors. In light of prior research, it may well be that competitors' concern with maximizing relative advantage over others is primarily defensive, ensuring that their own input does not exceed the benefits they might receive in return, a goal that to some extent is consistent with reciprocity and therefore helps one to understand their fairly high responsiveness to beliefs regarding partner willingness to sacrifice (cf. aversive competition; Kuhlman et al., 1986; Messick & Thorngate, 1967).

¹² In contrast, earlier work of Ross and Sicoly (1979) has revealed that individuals tend to overestimate their own, rather than their partner's specific contributions to their joint well-being (e.g., taking out the garbage). It seems plausible that judgments of specific contributions are mediated by differential cognitive availability of one's own and partner's activities, whereas judgments of global attributes, particularly those regarding the partner, may be colored by the desire to attribute favorable intentions to the partner. It is also interesting to link the present findings to a large body of research revealing that individuals tend to think of themselves as more prosocial, generous, and fair than the average other (e.g., Messick, Bloom, Boldizar, & Samuelson, 1985; Van Lange, 1991), findings that frequently are explained in terms of motivation to maintain or improve a favorable self-image. However, in the context of an ongoing close relationship, one could argue that it is also self-serving to believe that a partner is strongly motivated to sacrifice; after all, this would imply that "I am a person worthy of sacrifice," which may be an indirect way to maintain or improve a favorable understanding of self.

on investment size). Thus, it would be important to examine whether commitment promotes willingness to sacrifice among partners in long-term relationships and whether social value orientation moderates this link.

Conclusion

The current work examined associations among interpersonal orientations, prosocial behavior, and close relationships, thereby integrating literatures that frequently are treated as separate lines of research. For example, there tend to be few cross references in these literatures, review articles do not tend to integrate the insights obtained in these lines of research, and textbooks tend to devote separate chapters to these topics. We contend that these lines of research are conceptually interrelated (e.g., most deal with issues of interdependence) and that frequently, similar motivations (e.g., concern with partner well-being, long-term self-interest, and reciprocity) are relevant to increasing our knowledge regarding interpersonal orientations, prosocial behavior, and relationship functioning. Although preliminary, the current findings underscore the fruitfulness of such an integrative approach, in that a dispositional variable arising from research on experimental games—social value orientation—in combination with dependence-relevant features of relationships is relevant to understanding the motives underlying willingness to sacrifice in ongoing close relationships.

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